Steven Schultz
James G. Cummings Trust
PO Box 1138
Fort Bragg CA 95437

30 September 2003

Project No. P219 TO8

Letter Report
Groundwater Monitoring Conducted 26 August 2003
501 North Main Street
Fort Bragg CA
Case No. 1TMC387

Dear Mr. Schultz:

This letter report documents groundwater monitoring conducted 26 August 2003. Water levels were measured in all wells and samples were collected and analyzed for two wells (MW2 and MW4). The results of our work are summarized in the following:

- Table 1 provides an environmental chronology.
- Table 2 summarizes groundwater level and gradient data.
- Table 3 summarizes groundwater purging and sampling information. Purge water generated during the work was containerized in labeled drums and stored onsite.
- Table 4 summarizes groundwater analytical results from monitoring wells.
- Figure 1 provides a location map.
- Figure 2 shows well locations.
- Figure 3 shows groundwater level and gradient data.
- Attachment 1 contains the groundwater sampling forms.
- Attachment 2 contains the laboratory report and chain-of-custody form.

Please contact us with any questions or comments.

Sincerely,

STREAMBORN

Douglas W. Lovell, PE
Geoenvironmental Engineer

cc: Dan Warner / North Coast RWQCB, Santa Rosa CA
Mike Mihos / Mike's Classic Car Care, Fort Bragg CA

Table 1 (Page 1 of 2)

Environmental Chronology
501 North Main Street
Fort Bragg CA

Date	Performed By	Description
Circa 1940's	Unknown	• Thirteen underground tanks were installed at the property: eight 55-gallon tanks, 15,000-gallon tank, 400-gallon tank, 325-gallon tank, 28-gallon tank, and 24-gallon tank. • Sump installed inside the garage at the property. • Hydraulic lift installed inside the garage at the property.
Circa 1940's to 1970's	Anderson	• The property was operated as a service station called "Anderson's Service Station". • The eight 55-gallon underground tanks were used to store virgin motor oil. • The 15,000-gallon underground tank and 400-gallon underground tank were used to store leaded gasoline. For some period of time (dates unknown), the gasoline was supplied by Chevron. • The 325-gallon underground tank was used to store waste oil. • The 28-gallon underground tank and 24-gallon underground tank were used to store unknown fluids. The fact that these tanks are small in volume leads us to believe they stored fluids with a correspondingly small demand, such as kerosene and/or white gas (unleaded gasoline).
1970's	Unknown	• The service station was closed. Use of the tanks, hydraulic lift, and sump were discontinued.
23 April 1998	Foss Environmental Services	• The 325-gallon waste oil tank, 15,000-gallon gasoline tank, 325-gallon gasoline tank, one of the eight 55-gallon virgin motor oil tanks, and sump were triple-rinsed. Approximately 3,200-gallons of rinseate were transported to the Seaport Environmental facility (Redwood City CA) for disposal. • The 15,000-gallon underground gasoline tank was ventilated with a fan (this continued to 15 May 1998).
1 May 1998	Streamborn	• Soil samples were collected beneath each end of the 15,000-gallon underground gasoline tank via angled borings. The soil samples were analyzed for TPH-gasoline, BTEX, MTBE, and total lead.
19 - 22 May 1998	Streamborn and Foss Environmental Services	• The 15,000-gallon underground gasoline tank was backfilled with sand-cement slurry. • The remaining seven 55-gallon virgin motor oil tanks were triple-rinsed. Approximately 250-gallons of rinseate were transported to the Seaport Environmental facility (Redwood City CA) for disposal. • The 400-gallon gasoline tank, 325-gallon waste oil tank, and eight 55-gallon virgin motor oil tanks were excavated and removed. The piping associated with these tanks and the 15,000-gallon tank was excavated and removed. • The sump was removed. • The hydraulic lift, aboveground hydraulic fluid tank, and associated piping were removed. • The tanks, piping, and hydraulic lift were transported to Schnitzer Steel (Oakland CA) for recycling as scrap steel. • Containerized tank solids and sump debris were transported to Demenno Kerdoon (Los Angeles CA) for disposal. • Soil samples were collected from beneath the 400-gallon gasoline tank, 325-gallon waste oil tank, eight 55-gallon virgin motor oil tanks, sump, and hydraulic lift. Soil samples were collected from beneath the piping associated with the underground tanks. Soil samples were also collected from the stockpiles of excavated soil. As appropriate, soil samples were analyzed for TPH-motor oil, TPH-diesel, TPH-gasoline, BTEX, fuel oxygenates and other VOCs, semivolatile organic compounds, total lead, total chromium, total cadmium, total nickel, and total zinc. • The common excavation for the eight 55-gallon virgin motor oil tanks was backfilled with approximately 8 cubic yards of imported soil. • The excavation for the 400-gallon gasoline tank was backfilled with approximately 8 cubic yards of sand-cement slurry. • While excavating to remove the aforementioned tanks and piping, two sets of pipes were discovered immediately south of the 15,000-gallon gasoline tank. These pipes did not appear to be associated with any of the previously-identified tanks.
8 - 9 October 1998	Streamborn	• Seven Geoprobe borings were completed to investigate petroleum hydrocarbon releases. Soil and groundwater samples were collected in the borings. Selected soil samples were analyzed for TPH-motor oil, TPH-diesel, TPH-gasoline, BTEX, fuel oxygenates, volatile organic compounds, and semivolatile organic compounds, as appropriate. Groundwater samples were analyzed for TPH-motor oil, TPH-diesel, TPH-gasoline, BTEX, fuel oxygenates, volatile organic compounds, semivolatile organic compounds, dissolved lead, dissolved chromium, dissolved cadmium, dissolved nickel, and dissolved zinc, as appropriate.
22 - 23 October 1998	Streamborn and Foss Environmental Services	• The previously-unidentified sets of pipes were excavated, revealing two additional underground tanks that likely stored kerosene or unleaded gasoline (white gas). • The 28-gallon tank, 24-gallon tank, and two sets of piping were removed. The tanks and associated piping were transported to Schnitzer Steel (Oakland CA) for recycling as scrap steel. • Soil samples were collected from beneath the 28-gallon tank, from beneath 24-gallon tank, and from the stockpiles of excavated soil. The soil samples were analyzed for TPH-motor oil, TPH-kerosene, TPH-diesel, TPH-gasoline, BTEX, and total lead. • The excavations for the 28-gallon tank and 24-gallon tank were backfilled with excavated soil. • The excavation for the 325-gallon waste oil tank was backfilled with excavated soil and 2 cubic yards of imported soil. • Concrete debris (from removal of the pump island and pavement) was transported to the Baxman Gravel Company (Fort Bragg CA) for crushing and recycling as aggregate. • Approximately 16 cubic yards of soil excavated during removal of the 400-gallon gasoline tank and eight virgin motor oil tanks was transported to Keller Canyon Landfill (Pittsburg CA) for disposal.
29 December 1998	Chico Drain Oil Service	• The drummed water and rinseate, generated during removal of the 28- and 24-gallon tanks, was transported to Oil Re-refining (Portland OR) for disposal.
30 December 1998	Foss Environmental Services	• The drummed soil, generated during removal of the 28- and 24-gallon tanks, was transported to Chemical Waste Management (Kettleman City CA) for disposal.
13 -14 September 2000	Streamborn	• Five monitoring wells ranging in depth from 22 to 24 feet were installed (MW1 through MW5). Soil and groundwater samples were collected and analyzed for TPH-motor oil, TPH-diesel, TPH-gasoline, BTEX, fuel oxygenates, and volatile organic compounds. Water levels were measured in the monitoring wells.
13-14 December 2000	Streamborn	• Water levels were measured in and groundwater samples were collected from monitoring wells MW1 through MW5. Samples were analyzed for TPH-motor oil, TPH-diesel, TPH-gasoline, BTEX, fuel oxygenates, and volatile organic compounds. • Level survey performed for the wells.
7 March 2001	Streamborn	• Water levels were measured in and groundwater samples were collected from monitoring wells MW1 through MW5. Samples were analyzed for TPH-motor oil, TPH-diesel, TPH-gasoline, BTEX, fuel oxygenates, and volatile organic compounds. • Level survey was performed again and the original survey measurements were verified.

Table 1 (Page 2 of 2)

Environmental Chronology
501 North Main Street
Fort Bragg CA

Date	Performed By	Description
13 June 2001	Streamborn	• Water levels were measured in and groundwater samples were collected from monitoring wells MW1 through MW5. Samples were analyzed for TPH-motor oil, TPH-diesel, TPH-gasoline, BTEX, fuel oxygenates, and volatile organic compounds.
9 January 2002	Streamborn	• Water levels were measured in monitoring wells MW1 through MW5 and groundwater samples were collected from monitoring wells MW2, MW4, and MW5. Samples were analyzed for TPH-diesel, TPH-gasoline, BTEX, and fuel oxygenates.
23 February 2003	Streamborn	• Water levels were measured in monitoring wells MW1 through MW5 and groundwater samples were collected from monitoring wells MW2 and MW4. Samples were analyzed for TPH-motor oil, TPH-kerosene, TPH-diesel, TPH-stoddard solvent, TPH-hydraulic oil, TPH-gasoline, BTEX, and fuel oxygenates.
26 August 2003	Streamborn	• Water levels were measured in monitoring wells MW1 through MW5 and groundwater samples were collected from monitoring wells MW2 and MW4. Samples were analyzed for TPH-motor oil, TPH-kerosene, TPH-diesel, TPH-stoddard solvent, TPH-hydraulic oil, TPH-gasoline, BTEX, and fuel oxygenates.

General Note

(a) TPH = total petroleum hydrocarbons. BTEX = benzene, toluene, ethylbenzene, and xylenes. MTBE = methyl tertiary butyl ether.

Table 2

Groundwater Level and Gradient Information
501 North Main Street
Fort Bragg CA

Location	MW1		MW2		MW3		MW4		MW5		Groundwater Gradient	
Ground Surface	Elev = 999.33		Elev = 999.26		Elev = 999.07		Elev = 998.84		Elev = 998.23			
Measuring Point	TOC N Side, Elev = 998.97		TOC N Side, Elev = 998.83		TOC N Side, Elev = 998.76		TOC N Side, Elev = 998.55		TOC N Side, Elev = 997.87			
Intercepted Interval	Depth	Elev	Depth	Elev	Depth	Elev	Depth	Elev	Depth	Elev		
	9 to 24	975.3 to 990.3	9 to 24	975.3 to 990.3	9 to 24	975.1 to 990.1	8 to 23	975.8 to 990.8	7 to 22	976.2 to 991.2	Direction	Magnitude
14 September 2000	15.29	983.68	14.27	984.56	14.92	983.84	15.12	983.43	14.30	983.57		
13 December 2000	15.17	983.80	14.34	984.49	14.98	983.78	15.17	983.38	14.36	983.51	N 64°W	0.009
7 March 2001	11.75	987.22	11.40	987.43	11.48	987.28	11.49	987.06	10.78	987.09	N 73°W	0.004
13 June 2001	13.82	985.15	13.04	985.79	13.54	985.22	13.67	984.88	12.90	984.97	N 77°W	0.007
9 January 2002	10.05	988.92	9.87	988.96	9.80	988.96	9.71	988.84	9.04	988.83	N 72°W	0.002
23 February 2003	11.25	987.72	10.98	987.85	11.0	987.76	10.99	987.56	10.29	987.58	N 79°W	0.003
26 August 2003	14.17	984.80	13.37	985.46	13.89	984.87	14.03	984.52	13.25	984.62	N 79°W	0.003
Total Depth (Last Measurement)	23.2		23.3		22.7		22.5		21.3			

General Notes

(a) Measurements cited in units of feet. Elevation datum is site-specific (not Mean Sea Level).

(b) Measurements by Streamborn (Berkeley CA).

(c) Depth of intercepted interval measured relative to the ground surface, and corresponds to the sand pack interval.

(d) TOC = top of PVC casing. N = north. Measuring points are the top of PVC casing, north side.

(e) Depth to water and total depth measured relative to the top of PVC casing.

(f) Elevations are based on 13 December 2000 survey performed by Streamborn. Elevations relative to site-specific datum (Bench Mark No. 1 = northeast corner of step on loading dock for the property directly south across Pine Street [North Coast Brewing]. Assumed elevation = 1,000.00 feet).

Table 3

Groundwater Purging and Sampling Information
501 North Main Street
Fort Bragg CA

Location	Sample Date	Sample Type	Dissolved Oxygen (mg/L)	pH	Specific Conductance (μS/cm)	Temperature (degrees C)	ORP (mV)	Turbidity and Color	Purge Method	Purge Duration (minutes)	Volume Purged (gallons)	Purged Dry ?	Standing Water Casing Volumes Removed
MW1	14 Sep 2000	Grab (bailer)	NM	7.0	NM	18.6	-230	Opaque, brown	Submersible pump	60	3	Yes	±3
	14 Dec 2000	Grab (bailer)	NM	8.0	870	15.1	-260	Opaque, brown	Submersible pump	25	12	Yes	±9
	7 Mar 2001	Grab (bailer)	2.1	7.4	470	15.6	-220	Cloudy, brown	Submersible pump	7	6	No	±3
	13 Jun 2001	Grab (bailer)	3.3	6.9	260	17.6	50	Translucent, brown	Submersible pump	9	5	Yes	±3
MW2	14 Sep 2000	Grab (bailer)	NM	6.6	NM	18.0	-220	Cloudy, Grey	Submersible pump	100	15	No	±10
	13 Dec 2000	Grab (bailer)	NM	7.2	870	18.1	-250	Cloudy, Grey	Submersible pump	7	10	No	±7
	7 Mar 2001	Grab (bailer)	1.7	7.4	700	15.4	-240	Cloudy, Grey	Submersible pump	8	6	No	±3
	13 Jun 2001	Grab (bailer)	1.5	7.1	560	16.7	-20	Clear, none	Submersible pump	6	5	No	±3
	9 Jan 2002	Grab (bailer)	2.0	7.1	510	16.4	-170	Clear, none	Submersible pump	10	7	No	±3
	23 Feb 2003	Grab (bailer)	1.9	7.6	660	16.4	-50	Translucent, brown	Submersible pump	10	6	No	±3
	26 Aug 2003	Grab (bailer)	1.9	6.7	620	19.5	-50	Clear, none	Submersible pump	10	5	No	±3
MW3	14 Sep 2000	Grab (bailer)	NM	7.0	NM	17.2	-180	Cloudy, brown	Submersible pump	17	15	No	±12
	13 Dec 2000	Grab (bailer)	NM	6.8	230	14.8	-180	Opaque, brown	Submersible pump	5	5	No	±5
	7 Mar 2001	Grab (bailer)	6.5	6.6	160	13.9	-170	Cloudy, brown	Submersible pump	6	6	No	±3
	13 Jun 2001	Grab (bailer)	7.4	6.5	170	15.6	80	Cloudy, brown	Submersible pump	17	10	No	±7
MW4	14 Sep 2000	Grab (bailer)	NM	6.8	NM	17.1	-240	Translucent, brown	Submersible pump	35	15	No	±12
	13 Dec 2000	Grab (bailer)	NM	7.2	510	15.1	-270	Clear, none	Submersible pump	7	5	No	±4
	7 Mar 2001	Grab (bailer)	2.2	7.0	570	14.0	-220	Clear, none	Submersible pump	7	6	No	±3
	13 Jun 2001	Grab (bailer)	1.7	6.7	710	19.5	-30	Clear, none	Submersible pump	6	5	No	±3
	9 Jan 2002	Grab (bailer)	1.9	7.0	520	16.2	-50	Clear, none	Submersible pump	10	6	No	±3
	23 Feb 2003	Grab (bailer)	1.1	7.0	510	16.3	-160	Clear, none	Submersible pump	10	6	No	±3
	26 Aug 2003	Grab (bailer)	1.4	6.4	590	18.6	80	Turbid, white	Submersible pump	15	4	No	±3
MW5	14 Sep 2000	Grab (bailer)	1.0	6.5	NM	16.4	-160	Turbid, brown	Submersible pump	15	15	No	±13
	13 Dec 2000	Grab (bailer)	NM	6.4	160	17.3	-170	Cloudy, brown	Submersible pump	10	10	No	±9
	7 Mar 2001	Grab (bailer)	6.2	6.5	180	14.6	-160	Cloudy, brown	Submersible pump	7	5	No	±3
	13 Jun 2001	Grab (bailer)	6.2	6.4	200	17.4	0	Cloudy, brown	Submersible pump	8	4	No	±3
	9 Jan 2002	Grab (bailer)	6.5	6.3	190	15.8	-60	Turbid, brown	Submersible pump	10	6	No	±3

General Notes

(a) Purging and sampling performed by Streamborn (Berkeley CA).

(b) ORP = oxidation/reduction potential.

(c) NM = Not Measured.

Groundwater Analytical Results from Monitoring Wells
501 North Main Street
Fort Bragg CA

Location	Sample Date	Sample Type	TPH-Diesel (µg/L)	TPH-Motor Oil (µg/L)	TPH-Kerosene (µg/L)	TPH-Stoddard Solvent (µg/L)	TPH-Hydraulic Oil (µg/L)	TPH-Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Volatile Organic Compounds (EPA Method 8260) (µg/L)	Fuel Oxygenates (EPA Method 8260) (µg/L)
MW1	14 Sep 2000	Grab	93 (1)	<710	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	<0.5 to <50	<5 to <10
	14 Dec 2000	Grab	<50	<580	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	Chloroform = 1.3 Others <0.5 to <50	<5 to <10
	7 Mar 2001	Grab	<50	<500	NM	NM	NM	63	<0.5	<0.5	<0.5	<0.5	<0.5 to <50	<5 to <10
	13 Jun 2001	Grab	<50	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	<0.5 to <50	<5 to <10
MW2	14 Sep 2000	Grab	1,400 (1)	<500	NM	NM	NM	2,000	<0.5	<0.5	18	33	<2.0 to <200	<5 to <10
	13 Dec 2000	Grab	210 (1)	<500	NM	NM	NM	800 (1)	2.0	<0.5	<0.5	<0.5	<2.5 to <250	<5 to <10
	7 Mar 2001	Grab	160 (1)	<500	NM	NM	NM	1,300 (1)	<2.5	<2.5	<2.5	<2.5	Isopropyl benzene = 0.81 Others <0.5 to <50	<5 to <10
	13 Jun 2001	Grab	240 (1)	<500	NM	NM	NM	660 (1)	<0.5	<0.5	<0.5	<0.5	<0.5 to <50	<5 to <10
	9 Jan 2002	Grab	160 (1)	NM	NM	NM	NM	820 (1)	<0.5	<0.5	<0.5	<0.5	NM	<25 to <50
	23 Feb 2003	Grab	170 (1)	<500	<50	<50	<500	1,300 (1)	<0.5	<0.5	<0.5	<1.0	NM	<0.5 to <25
	26 Aug 2003	Grab	<50	<500	<50	190	<500	1,300 (1)	<2.5	<2.5	<2.5	<5.0	NM	<2.5 to <25
MW3	14 Sep 2000	Grab	<50	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	Carbon Disulfide = 3.0 Chloroform = 1.5 Others <0.5 to <50	<5 to <10
	13 Dec 2000	Grab	<50	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	Chloroform = 0.88 Others <0.5 to <50	<5 to <10
	7 Mar 2001	Grab	<50	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	Chloroform = 0.86 Others <0.5 to <50	<5 to <10
	13 Jun 2001	Grab	<50	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	<0.5 to <50	<5 to <10
MW4	14 Sep 2000	Grab	540 (1)	<500	NM	NM	NM	1,700	<0.5	<0.5	<0.5	11	<2.0 to <200	<5 to <10
	13 Dec 2000	Grab	120 (1)	<500	NM	NM	NM	240	<0.5	2.0	1.2	4.1	<0.5 to <50	<5 to <10
	7 Mar 2001	Grab	51 (1)	<500	NM	NM	NM	210 (1)	<0.5	<0.5	<0.5	<0.5	<0.5 to <50	<5 to <10
	13 Jun 2001	Grab	50 (1)	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	<0.5 to <50	<5 to <10
	9 Jan 2002	Grab	<50	NM	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NM	<5 to <10
	23 Feb 2003	Grab	<50	<500	<50	<50	<500	<50	<0.5	<0.5	<0.5	<1.0	NM	<0.5 to <25
	26 Aug 2003	Grab	<50	<500	<50	<50	<500	57 (1)	<0.5	<0.5	<0.5	<1.0	NM	<0.5 to <5

Groundwater Analytical Results from Monitoring Wells
501 North Main Street
Fort Bragg CA

Location	Sample Date	Sample Type	TPH-Diesel (µg/L)	TPH-Motor Oil (µg/L)	TPH-Kerosene (µg/L)	TPH-Stoddard Solvent (µg/L)	TPH-Hydraulic Oil (µg/L)	TPH-Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Volatile Organic Compounds (EPA Method 8260) (µg/L)	Fuel Oxygenates (EPA Method 8260) (µg/L)
MW5	14 Sep 2000	Grab	<50	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	Chloroform = 1.3 Others <0.5 to <50	<5 to <10
	13 Dec 2000	Grab	<50	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	Chloroform = 0.85 Others <0.5 to <50	<5 to <10
	7 Mar 2001	Grab	<50	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	Chloroform = 1.4 Others <0.5 to <50	<5 to <10
	13 Jun 2001	Grab	<50	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	<0.5 to <50	<5 to <10
	9 Jan 2002	Grab	<50	NM	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NM	<5 to <10

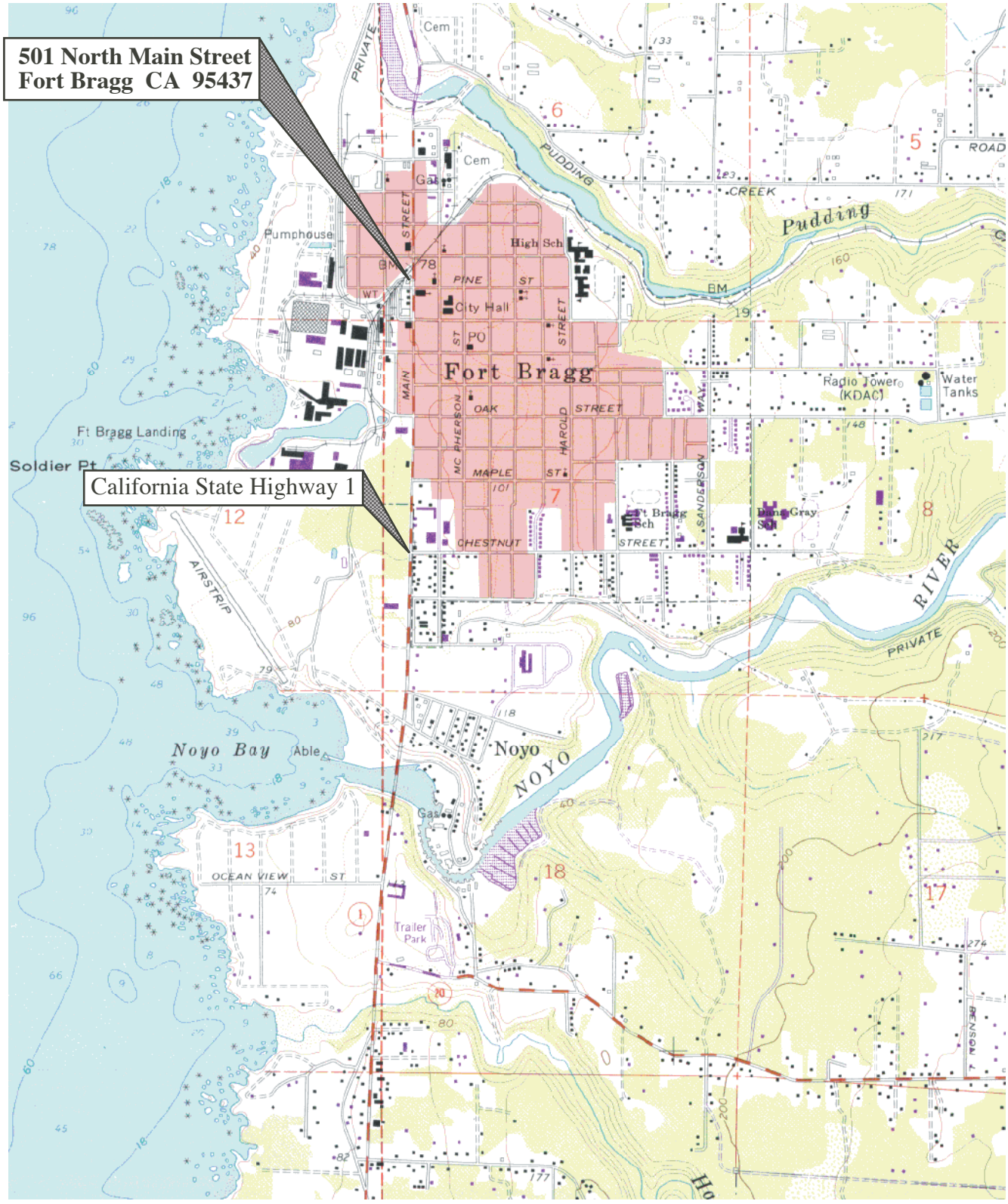
General Notes

(a) TPH = total petroleum hydrocarbons. NM = not measured.

(b) Samples collected by Streamborn (Berkeley CA). Samples analyzed by Chromalab = STL Chromalab = STL San Francisco (Pleasanton CA).

Footnotes

(1) Laboratory reported the result did not match the standard.



0 0.5 1.0

Approximate Scale in Miles

0 2,000 4,000

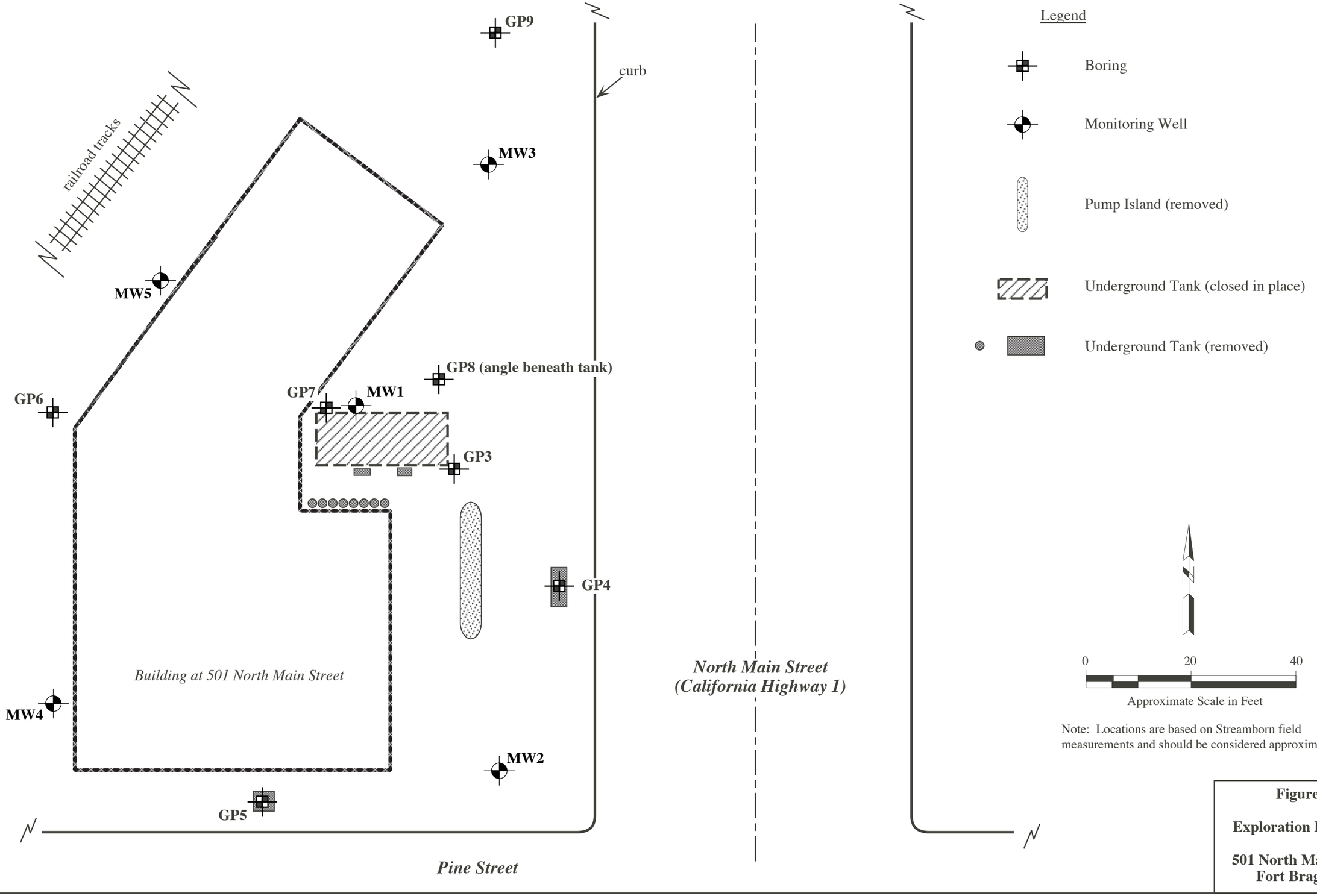
Approximate Scale in Feet

Basemap: U.S. Geological Survey, 7.5 Minute Quadrangle, Fort Bragg CA. 1960 (Photorevised 1978)

Figure 1

Location Map

501 North Main Street Fort Bragg CA



Note: Locations are based on Streamborn field measurements and should be considered approximate.

Figure 2

Exploration Locations

501 North Main Street
Fort Bragg CA

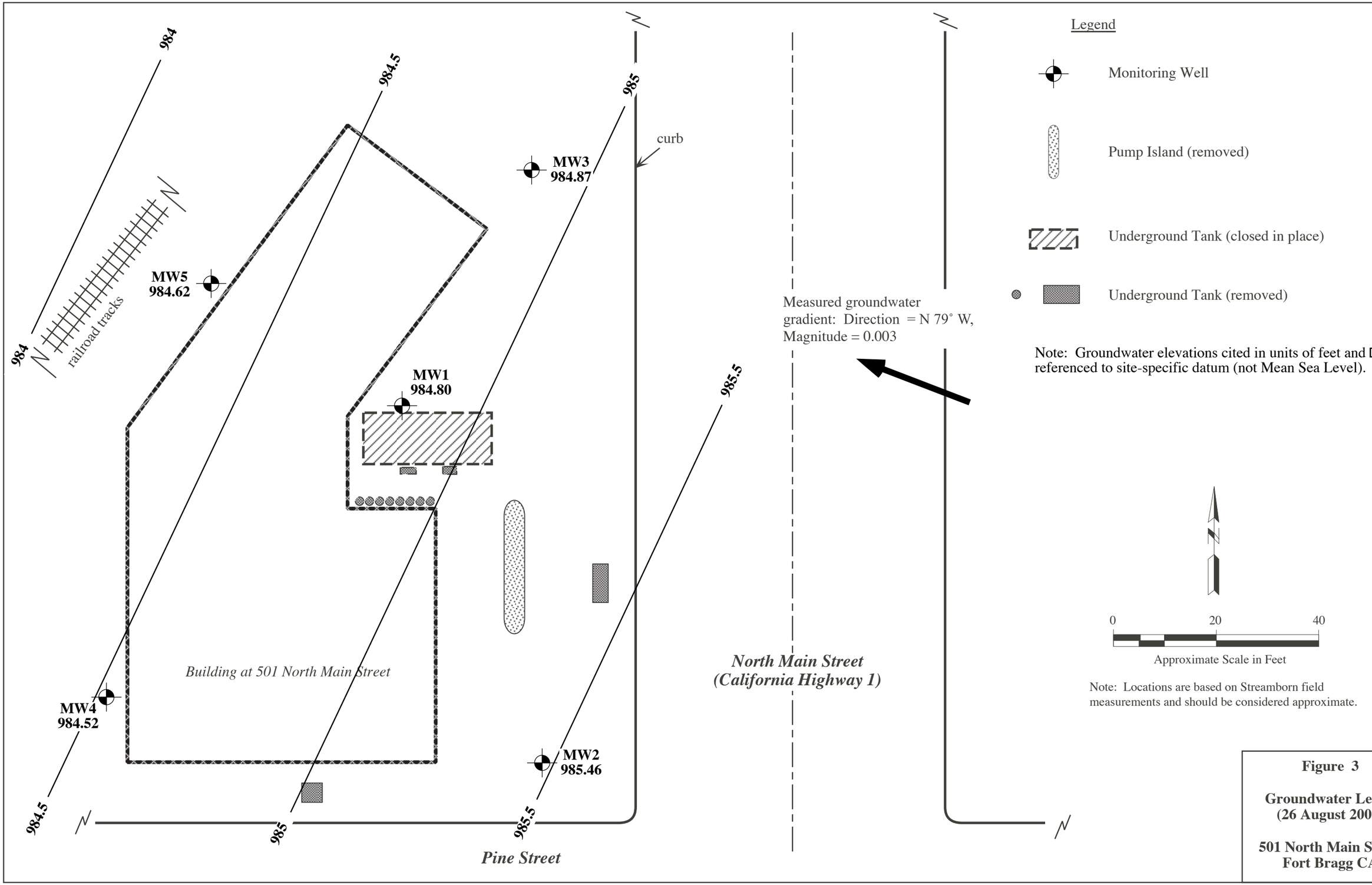


Figure 3

Groundwater Levels □ (26 August 2003)

501 North Main Street Fort Bragg CA

ATTACHMENT 1

Groundwater Sampling Forms

MONITORING WELL PURGE DATA

Project Name/Number:	501 North Main Street / P219 TO8	Logged By:	Paul A. Fairbairn
Property Location:	501 North Main Street, Fort Bragg CA	Date:	26 August 2003
Well Number:	MW2	Sample Type:	Grab
Purging Equipment:	Submersible Pump	Depth to Water:	13.37
Sampling Equipment:	Bailer	Total Depth:	23.3
Measuring Point:	Top of casing, north side	Odor:	YES (PETROL)
Free Product:	NO	Sample Number:	MW2 (26 Aug 03)
Comments:			

Note obstructions, well damage, or other compromising features under comments. Record depth in feet.

Total Depth (feet)	-	Depth to Water (feet)	x	0.04 gallons/foot for 1-inch well 0.16 gallons/foot for 2-inch well 0.65 gallons/foot for 4-inch well 1.47 gallons/foot for 6-inch well	=	Single Casing Volume (gallons)		Three Casing Volumes (gallons)
23.3	-	13.37	x	0.16	=	~~23.7~~ 1.6	x 3	4.8

Purge Volume (gallons)	Time	Dissolved Oxygen (mg/L)	pH	Specific Conductivity (µS/cm)	Temp (°C)	ORP (mV)	Turbidity	Color	Purged Dry?	Comments
0	1120	1.60	7.49	1147	14.9	35.7	ORDRUM	LIGHT BR	NO	Start purge
2.5	1135	1.70	6.45	621	19.3	-48.4	CLEAR	NONE	NO	
5.0	1150	1.85	6.	622	19.5	-51.3	"	"	NO	
										Collect sample

Note observations of odor, sheen, and other signs of contamination under comments. Record turbidity as clear, translucent, opaque, cloudy, or turbid.

MONITORING WELL PURGE DATA

Project Name/Number:	501 North Main Street / P219 TO8	Logged By:	Paul A. Fairbairn
Property Location:	501 North Main Street, Fort Bragg CA	Date:	26 August 2003
Well Number:	MW4	Sample Type:	Grab
Purging Equipment:	Submersible Pump	Depth to Water:	14.03
Sampling Equipment:	Bailer	Total Depth:	
Measuring Point:	Top of casing, north side	Odor:	
Free Product:		Sample Number:	MW4 (26 Aug 03)
Comments:			

Note obstructions, well damage, or other compromising features under comments. Record depth in feet.

Total Depth (feet)	-	Depth to Water (feet)	x	0.04 gallons/foot for 1-inch well 0.16 gallons/foot for 2-inch well 0.65 gallons/foot for 4-inch well 1.47 gallons/foot for 6-inch well	=	Single Casing Volume (gallons)		Three Casing Volumes (gallons)
225	-	14.03	x	0.16	=	1.4	x 3	4.1

Purge Volume (gallons)	Time	Dissolved Oxygen (mg/L)	pH	Specific Conductivity (µS/cm)	Temp (°C)	ORP (mV)	Turbidity	Color	Purged Dry?	Comments
0	1215	2.24	6.34	620	18.6	1.48	Translucent	White	No	Start purge
2	1220	1.48	6.37	608	18.3	90.9	"	"	"	
4.1	1230	1.39	6.35	592	18.6	79.0	"	"	"	
										Collect sample

Note observations of odor, sheen, and other signs of contamination under comments. Record turbidity as clear, translucent, opaque, cloudy, or turbid.

ATTACHMENT 2

Laboratory Report and Chain-of-Custody Form

Submission#: 2003-08-0896

Streamborn Consulting Services September 12, 2003

900 Sante Fe Avenue
Albany, CA 94706

Attn.: Paul A. Fairbairn

Project#: P219 TO8
Project: 501 North Main
Site: Fort Bragg, CA

Dear Mr. Fairbairn,

Attached is our report for your samples received on 08/28/2003 19:32
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 10/12/2003 unless you have requested otherwise.
We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.
You can also contact me via email. My email address is: vvancil@stl-inc.com

Sincerely,

Vincent Vancil
Project Manager

Fuel Oxygenates by 8260B

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue
Albany, CA 94706
Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8
501 North Main

Received: 08/28/2003 19:32

Site: Fort Bragg, CA

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
501-MW2 (26 Aug 03)	08/26/2003 13:30	Water	1
501-MW4 (26 Aug 03)	08/26/2003 12:30	Water	2

Fuel Oxygenates by 8260B

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue
Albany, CA 94706
Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8
501 North Main

Received: 08/28/2003 19:32

Site: Fort Bragg, CA

Prep(s):	5030B	Test(s):	8260B
Sample ID:	**501-MW2 (26 Aug 03)**	Lab ID:	2003-08-0896 - 1
Sampled:	08/26/2003 13:30	Extracted:	9/5/2003 15:40
Matrix:	Water	QC Batch#:	2003/09/05-1C.66

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	1300	250	ug/L	5.00	09/05/2003 15:40	g
tert-Butyl alcohol (TBA)	ND	25	ug/L	5.00	09/05/2003 15:40	
Methyl tert-butyl ether (MTBE)	ND	2.5	ug/L	5.00	09/05/2003 15:40	
Di-isopropyl Ether (DIPE)	ND	5.0	ug/L	5.00	09/05/2003 15:40	
Ethyl tert-butyl ether (ETBE)	ND	2.5	ug/L	5.00	09/05/2003 15:40	
tert-Amyl methyl ether (TAME)	ND	2.5	ug/L	5.00	09/05/2003 15:40	
Benzene	ND	2.5	ug/L	5.00	09/05/2003 15:40	
Toluene	ND	2.5	ug/L	5.00	09/05/2003 15:40	
Ethylbenzene	ND	2.5	ug/L	5.00	09/05/2003 15:40	
Total xylenes	ND	5.0	ug/L	5.00	09/05/2003 15:40	
Surrogate(s)						
1,2-Dichloroethane-d4	98.2	76-114	%	5.00	09/05/2003 15:40	
Toluene-d8	100.4	88-110	%	5.00	09/05/2003 15:40	

Fuel Oxygenates by 8260B

Streamborn Consulting Services
Attn.: Paul A. Fairbairn

900 Sante Fe Avenue
Albany, CA 94706
Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8
501 North Main

Received: 08/28/2003 19:32

Site: Fort Bragg, CA

Prep(s):	5030B	Test(s):	8260B
Sample ID:	**501-MW4 (26 Aug 03)**	Lab ID:	2003-08-0896 - 2
Sampled:	08/26/2003 12:30	Extracted:	9/5/2003 16:04
Matrix:	Water	QC Batch#:	2003/09/05-1C.66

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	57	50	ug/L	1.00	09/05/2003 16:04	g
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	09/05/2003 16:04	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	09/05/2003 16:04	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	1.00	09/05/2003 16:04	
Ethyl tert-butyl ether (ETBE)	ND	0.50	ug/L	1.00	09/05/2003 16:04	
tert-Amyl methyl ether (TAME)	ND	0.50	ug/L	1.00	09/05/2003 16:04	
Benzene	ND	0.50	ug/L	1.00	09/05/2003 16:04	
Toluene	ND	0.50	ug/L	1.00	09/05/2003 16:04	
Ethylbenzene	ND	0.50	ug/L	1.00	09/05/2003 16:04	
Total xylenes	ND	1.0	ug/L	1.00	09/05/2003 16:04	
Surrogate(s)						
1,2-Dichloroethane-d4	94.0	76-114	%	1.00	09/05/2003 16:04	
Toluene-d8	100.8	88-110	%	1.00	09/05/2003 16:04	

Fuel Oxygenates by 8260B

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue
Albany, CA 94706
Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8
501 North Main

Received: 08/28/2003 19:32

Site: Fort Bragg, CA

Batch QC Report

Prep(s): 5030B — Test(s): 8260B

Method Blank — **Water** — **QC Batch # 2003/09/05-1C.66**

MB: 2003/09/05-1C.66-046 — Date Extracted: 09/05/2003 10:46

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	09/05/2003 10:46	
Benzene	ND	0.5	ug/L	09/05/2003 10:46	
Toluene	ND	0.5	ug/L	09/05/2003 10:46	
Ethylbenzene	ND	0.5	ug/L	09/05/2003 10:46	
Total xylenes	ND	1.0	ug/L	09/05/2003 10:46	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	09/05/2003 10:46	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	09/05/2003 10:46	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	09/05/2003 10:46	
Ethyl tert-butyl ether (ETBE)	ND	0.5	ug/L	09/05/2003 10:46	
tert-Amyl methyl ether (TAME)	ND	0.5	ug/L	09/05/2003 10:46	
Surrogates(s)					
1,2-Dichloroethane-d4	96.3	76-114	%	09/05/2003 10:46	
Toluene-d8	103.4	88-110	%	09/05/2003 10:46	

Fuel Oxygenates by 8260B

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue
Albany, CA 94706
Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8
501 North Main

Received: 08/28/2003 19:32

Site: Fort Bragg, CA

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike **Water** **QC Batch # 2003/09/05-1C.66**

LCS 2003/09/05-1C.66-058 Extracted: 09/05/2003 Analyzed: 09/05/2003 09:58

LCSD 2003/09/05-1C.66-059 Extracted: 09/05/2003 Analyzed: 09/05/2003 10:22

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	20.6	20.8	25	82.4	83.2	1.0	69-129	20		
Toluene	23.8	23.7	25	95.2	94.8	0.4	70-130	20		
Methyl tert-butyl ether (MTBE)	22.1	21.8	25	88.4	87.2	1.4	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	466	471	500	93.2	94.2		76-114			
Toluene-d8	516	521	500	103.2	104.2		88-110			

Fuel Oxygenates by 8260B

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue
Albany, CA 94706
Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8
501 North Main

Received: 08/28/2003 19:32

Site: Fort Bragg, CA

Legend and Notes

Analysis Flag

o

Reporting limits were raised due to high level of analyte present in the sample.

Result Flag

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.

Total Extractable Petroleum Hydrocarbons (TEPH)

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue
Albany, CA 94706
Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8
501 North Main

Received: 08/28/2003 19:32

Site: Fort Bragg, CA

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
501-MW2 (26 Aug 03)	08/26/2003 13:30	Water	1
501-MW4 (26 Aug 03)	08/26/2003 12:30	Water	2

Total Extractable Petroleum Hydrocarbons (TEPH)

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue
Albany, CA 94706
Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8
501 North Main

Received: 08/28/2003 19:32

Site: Fort Bragg, CA

Prep(s):	3510/8015M	Test(s):	8015M
Sample ID:	**501-MW2 (26 Aug 03)**	Lab ID:	2003-08-0896 - 1
Sampled:	08/26/2003 13:30	Extracted:	9/6/2003 03:21
Matrix:	Water	QC Batch#:	2003/09/06-01.10

Analysis Flag: , (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	09/12/2003 06:10	
Motor Oil	ND	500	ug/L	1.00	09/12/2003 06:10	
Kerosene	ND	50	ug/L	1.00	09/12/2003 06:10	
Stoddard solvent	190	50	ug/L	1.00	09/12/2003 06:10	,nss
Hydraulic Oil	ND	500	ug/L	1.00	09/12/2003 06:10	
Surrogate(s)						
o-Terphenyl	82.6	60-130	%	1.00	09/12/2003 06:10	

Total Extractable Petroleum Hydrocarbons (TEPH)

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue
Albany, CA 94706
Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8
501 North Main

Received: 08/28/2003 19:32

Site: Fort Bragg, CA

Prep(s):	3510/8015M	Test(s):	8015M
Sample ID:	**501-MW4 (26 Aug 03)**	Lab ID:	2003-08-0896 - 2
Sampled:	08/26/2003 12:30	Extracted:	9/6/2003 03:21
Matrix:	Water	QC Batch#:	2003/09/06-01.10

Analysis Flag: , (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	09/12/2003 06:40	
Motor Oil	ND	500	ug/L	1.00	09/12/2003 06:40	
Kerosene	ND	50	ug/L	1.00	09/12/2003 06:40	
Stoddard solvent	ND	50	ug/L	1.00	09/12/2003 06:40	
Hydraulic Oil	ND	500	ug/L	1.00	09/12/2003 06:40	
Surrogate(s)						
o-Terphenyl	82.8	60-130	%	1.00	09/12/2003 06:40	

Total Extractable Petroleum Hydrocarbons (TEPH)

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue
Albany, CA 94706
Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8
501 North Main

Received: 08/28/2003 19:32

Site: Fort Bragg, CA

Batch QC Report

Prep(s): 3510/8015M — Test(s): 8015M

Method Blank — **Water** — **QC Batch # 2003/09/06-01.10**

MB: 2003/09/06-01.10-007 — Date Extracted: 09/06/2003 03:21

Compound	Conc.	RL	Unit	Analyzed	Flag
Diesel	ND	50	ug/L	09/12/2003 09:44	
Motor Oil	ND	500	ug/L	09/12/2003 09:44	
Kerosene	ND	50	ug/L	09/12/2003 09:44	
Stoddard solvent	ND	50	ug/L	09/12/2003 09:44	
Hydraulic Oil	ND	500	ug/L	09/12/2003 09:44	
Surrogates(s)					
o-Terphenyl	86.4	60-130	%	09/12/2003 09:44	

Total Extractable Petroleum Hydrocarbons (TEPH)

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue
Albany, CA 94706
Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8
501 North Main

Received: 08/28/2003 19:32

Site: Fort Bragg, CA

Batch QC Report

Prep(s): 3510/8015M

Test(s): 8015M

Laboratory Control Spike **Water** **QC Batch # 2003/09/06-01.10**

LCS 2003/09/06-01.10-001 Extracted: 09/06/2003 Analyzed: 09/08/2003 20:11

LCSD 2003/09/06-01.10-002 Extracted: 09/06/2003 Analyzed: 09/08/2003 20:42

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Diesel	818	796	1000	81.8	79.6	2.7	60-130	25		
Surrogates(s)										
o-Terphenyl	17.0	16.6	20.0	84.9	83.0		60-130	0		

Total Extractable Petroleum Hydrocarbons (TEPH)

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue
Albany, CA 94706
Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8
501 North Main

Received: 08/28/2003 19:32

Site: Fort Bragg, CA

Legend and Notes

Sample Comment

Lab ID: 2003-08-0896-1

nss = Hydrocarbon reported in the stoddard solvent range does not match the pattern of our standard.

STL

STL San Francisco

Sample Receipt Checklist

Submission #:2003- 08 - 0896

Checklist completed by: (initials) DSH Date: 08/29/03

Courier name: ☒ STL San Francisco ☐ Client _____

Custody seals intact on shipping container/samples	Yes___ No___	Not Present ✓
Chain of custody present?	Yes ✓	No___
Chain of custody signed when relinquished and received?	Yes ✓	No___
Chain of custody agrees with sample labels?	Yes ✓	No___
Samples in proper container/bottle?	Yes ✓	No___
Sample containers intact?	Yes ✓	No___
Sufficient sample volume for indicated test?	Yes ✓	No___
All samples received within holding time?	Yes ✓	No___
Container/Temp Blank temperature in compliance (4^{o} C ± 2)?	Temp: 5.5 °C Yes ✓	No___
	Ice Present Yes ✓	No___
Water - VOA vials have zero headspace?	No VOA vials submitted___ Yes ✓	No___

(if bubble is present, refer to approximate bubble size and itemize in comments as **S** (small ~O), **M** (medium ~ O) or **L** (large ~ O)

Water - **pH acceptable upon receipt?** ☒ Yes ☐ No

☐ **pH adjusted**– Preservative used: ☐ HNO_3 ☐ HCl ☐ H_2SO_4 ☐ NaOH ☐ ZnOAc –**Lot #(s)** _____

For any item check-listed "No", provided detail of discrepancy in comment section below:

Comments: _____

Project Management [Routing for instruction of indicated discrepancy(ies)]

Project Manager: (initials) _____ Date: ____/____/03

Client contacted: ☐ Yes ☐ No

Summary of discussion: _____

Corrective Action (per PM/Client): _____

STREAMBORN
CHAIN-OF-CUSTODY FORM

2003-08-0896 77416

Project Name: 501 North Main	Project Location: Fort Bragg CA	Project Number: P219 TO8
Sampler: Paul A Fairbairn	Laboratory: STL San Francisco	Laboratory Number:

			Matrix			Type		Containers				Turnaround			Analyses								
Sample Designation	Date	Time	Soil	Water	Vapor	Grab	Composite	Quantity	Type	Preservative	Filtration	48-Hour	5- Working Days	10-Working Days		TPH-motor oil/ kerosene /diesel /stoddard solvent/ hydraulic oil	TPH-Gasoline/BTEX/ Fuel Oxygenates (by 8260)				Sampler Comments	Laboratory Comments
501-MW2 (26 Aug 03)	26-Aug-03	1:30		x		x		1	1 liter amber	ice				x		x						
501-MW2 (26 Aug 03)	26-Aug-03	1:30		x		x		3	40 ml VOA	HCl/ice				x			x					
501-MW4 (26 Aug 03)	26-Aug-03	12:30		x		x		1	1 liter amber	ice				x		x						
501-MW4 (26 Aug 03)	26-Aug-03	12:30		x		x		3	40 ml VOA	HCl/ice				x			x					

7
5.5°C

Note: Sampler and laboratory to observe preservative, condition, integrity, etc. of samples and record (under "Comments") any exceptions from standard protocols.

Relinquished By: 8-26-03 1932	Received By:	Date: 8/26/03 Time: 1430
Relinquished By:	Received By: STL SF	Date: 8/28/03 Time: 1932

STREAMBORN Mail: PO Box 8330, Berkeley CA 94707-8330 Office: 900 Santa Fe Ave, Albany CA 94706 510/528-4234 Fax: 528-2613